



MEMBER ASSOCIATION OF

IADC

NEWSLETTER
JUNE, 1984

FEDERAL PRESIDENT'S COLUMN

Since our last newsletter it has been announced that John Brown has been invited, and has subsequently accepted, the Chair in Paedodontics in Texas. I am sure we all wish John a happy and fruitful future. This appointment is another example of recognition of Australian Paedodontists overseas.

Roger Hall will be travelling to Costa Rica early next year to attend the 10th IADC Congress as President Elect, and we all wish him a safe trip and happy return to Australia. Roger will be the IADC President until the Canadian IADC Meeting in Toronto in 1987, and just as a reminder, the 1989 meeting will be held in Greece.

The New South Wales branch of ASDC has the biennial conference well in hand, and I urge all members to attend. The Federal Council of ASDC will be electing a President for the 1984-1986 term at a meeting prior to the scientific meeting.

If you have any items of business to be raised, please send it to John Brownbill so that it can be placed on the Council Agenda or General Meeting Agenda.

With regard to the 10th IADC Congress in Costa Rica, we must congratulate the Organising Committee for their world-wide advertising. I believe it is going to be a memorable meeting, so if you are contemplating a trip to Costa Rica, don't hesitate - you won't regret it.

Congratulations to Dr. John W. Brownbill who has been appointed Correspondent for Australasia and the South Pacific for the I.A.D.C. Newsletter.

For all the interstate members: don't forget the Biennial Conference of ASDC, Wednesday 17th October - Friday 19th October.

See you there.

Des Kailis

AUSTRALIAN SOCIETY of DENTISTRY for CHILDREN

5th BIENNIAL CONVENTION

OCTOBER 18th - 19th 1984

The SYDNEY OPERA HOUSE Sydney.

GUEST SPEAKERS will be: -

Professor Stephen WEI - Professor and Chairman of Pedodontics
at University of California at San Francisco.
Professor Wei is an Adelaide Graduate.

will speak on

'Advances in Fluoride Therapy'
'Advances in Restorative Dentistry for
Children'
'Interceptive Orthodontics'
'Advances in Pedodontic Research'

Dr. John Brown - Department of Social and Preventive
Dentistry, University of Queensland

will speak on

'Studies in Bottle Caries'

Dr. Peter Gregory - Princess Margaret's Hospital for Children
Perth. Western Australia

will speak on

'Trauma to Deciduous Teeth and its
Implications for the Permanent Successors.'

Dr. Joe Verco - of South Australia

Will speak on

'Restoration of Grossly decayed
Anterior Teeth.'

Thursday evening has been set aside for the Convention Dinner
at a Venue to compliment beautiful Sydney

All members of A.S.D.C. will be circularised.

For details contact:- Honorary Secretary (N.S.W.Branch),
2/6 Old Castle Hill Road,
CASTLE HILL. 2154
N.S.W.
(Telephone (02) 680 2264)

FEDERAL SECRETARY'S REPORT

The General Meeting in Perth in 1983 passed a motion to increase the Federal subscription to \$16. However, it was brought to the attention of the Executive by the N.S.W. Branch that this was unconstitutional and that the subscription must remain at \$10 until the Council changed the subscription.

In April a postal meeting of the Council confirmed the Federal subscription of \$16 for 1984. State Branches have been refunded \$6 for each member in 1983.

John Brownbill

NOTES FROM THE BRANCHES

QUEENSLAND BRANCH

Our last regular meeting was held at the Dental School on Monday 2nd April. President, Bill Wilson, has the pleasure of presenting the annual prize awarded for high achievement in 'Dentistry for Children' in the Final Year. The 1983 Prize was shared by, now, Drs. Vivienne Loose and Julie Austin.

The Guest Speaker was Dr. Tim McEniery, Principal Dental Officer (Preventive) with the Queensland School Dental Service. He spoke on a subject close to his heart which he has researched thoroughly - "The Trend in Caries Rates - the What, Why & When of the Reduction".

He presented analyses of caries experience in Queensland children from three different data sources - formal surveys, the old School Dental records back to 1910, and material from the Australian School Dental Service Evaluation Study collected since 1976. Close examination of the early century material, particularly records in DMFT format of a massive initial survey in 1912-15, showed that pre-requisites of a reliable data basis, inter and intra examiner consistency, sensitivity and known diagnostic criteria, were present.

Overall the impression is of a slow rise from a DMFT of 6 at age 12 in 1912-15 to a DMFT of 7-8 in the early 1960's. Two intriguing aspects of the data were the presence of an Australian immediate post war caries decline and the identification of 1960-61 as the point of commencement of the present decline in caries prevalence. The commencement in 1960-61, a period which predates most direct or indirect fluoride effect raised questions as to other factors involved. It was suggested this could be epidemiologic evidence for the role of antibiotics.

Incidents of Practice were presented by Drs. J. Keys and I. Walke.

Dr. Keys discussed three cases:

1. A case where space maintenance was obtained by supporting a S.S. crown on one root of a second deciduous molar.
2. A root fracture of a deciduous central incisor which healed and remained symptomless.
3. The treatment of patient suffering from Epidermolysis bullosa.

Dr. Walke discussed a patient who had had an avulsed tooth re-implanted and subsequently endodontic treatment was refused by the mother. The mother herself, had a similar history with an anterior showing extensive root canal calcification.

At our next meeting, scheduled for Monday June 4th, Mrs. H. Mohay, who is a Psychologist, will talk on "Some Aspects of Child Behaviour in Relation to Dentistry".

Membership: The branch now boasts a financial membership of 32.

Unfortunately, we are soon to lose one of our stalwarts. Dr. John Brown, who is at present with the Department of Social & Preventive Dentistry, University of Queensland, has accepted appointment to the Chair of Community Dentistry, in San Antonio, Texas. John's contribution to this branch has been a very marked one. He will certainly be missed but the best wishes of his colleagues go with him on this significant step forward in his career.

Bill Whittle

VICTORIAN BRANCH

Already plans are underway for our "Annual Clinical Day" on September 7th.

The title this year is "A Potpourri of Children's Dentistry", including periodontal conditions, minor oral surgery and immediate and long-term treatment of trauma.

Further details will be available nearer the date of the Clinical Day.

Our second dinner meeting was held on April 12th. This was attended by 26 members and guests. Our Speakers were Dr. Hanny Calache and Dr. Christopher Olsen both of whom recently graduated M.D.Sc. in Children's and Preventive Dentistry at the University of Melbourne. Each presented a Case History of a patient who she/he had treated during their programme of study.

Dr. Calache presented the case of an 11 year old boy who demonstrated several dental anomalies.

1. A rare occurrence in tooth development, namely the combination of hypodontia (all third molars missing) and hyperdontia (supplemental maxillary laterals). This is uncommon in the one individual.
2. Fusion of teeth (namely 21 and 22).
3. Tetracycline staining of all permanent teeth.
4. Class I malocclusion with severe crowding in the maxillary segment and loss of space in the mandibular crowding in the maxillary labial segment and loss of space in the mandibular right quadrant.

The patient was harassed by his peers due to appearance and was refusing to attend school. Treatment was aimed at correcting his dental appearance and help him to accept dental treatment using local analgesia.

Treatment performed by Dr. Calache included:

1. Surgical hemisectioning of the fused teeth 21 and 22.
2. Extraction of one of the supplemental laterals.
3. Full upper fixed banding to re-align the maxillary anterior teeth.
4. Vital bleaching of tetracycline stained teeth.

The result thus far changed this patient's attitude toward his appearance and he is happy with the progress of his treatment. He no longer suffers name calling and is happier in attending school.

Dr. Olsen's presentation dealt with a 19 year old youth who suffers from Epidermolysis Bullosa Dystrophica Recessive. This is a debilitating condition in which the dermis shears away from the basal lamina as a result of minor friction, pressure or trauma. The oral condition had deteriorated because he could only eat soft refined foods and because it is physically painful and difficult for him to brush his teeth.

Treatment for this patient included -

1. Multiple extractions and restorations under intravenous ketamine and diazepam.
2. Construction of a nine unit Rochette Bridge to replace his anterior teeth as he was unable to wear a partial denture.
3. Intensive preventive regime using "Chlorex" and home fluoride Gels to aid oral hygiene and prevent further dental caries.

Both Dr. Calache and Dr. Olsen made effective use of slides and presented their cases comprehensively. Much interest and discussion was initiated in both these unusual cases. A long period of question time followed.

Our next meeting is set for Thursday July 19th when our Speaker will be Ms. Sally Kent, an Educational Research Officer at Monash University. Her topic will be "Television - Its Effect on Children".

Michael Morgan

The production of this Newsletter
has been assisted by
Colgate Palmolive Pty. Ltd.

W.A. BRANCH

We are able to report that the two day course conducted by the Branch in March was a great success, despite the attempts of projector gremlins and builders refurbishing the venue to disrupt the lecturer.

The lecturer, Dr. Spiros Chaconas, proved to be an absolute winner. He presented an enormous quantity of material - in fact, so great was the volume of information, that inevitably coverage was superficial, though one could only have come away with a whetted appetite. His style of delivery was both relaxed and entertaining. Probably the most valuable section was on the use of cephalometrics as an aid in diagnosis and in prediction of a child's future development.

Although not quite dentistry for children, he had some interesting sporting sidelights, from preparations for the forthcoming Olympic Games in his home city, Los Angeles, to the effectiveness of what are virtually occlusal splints (actually Mandibular Occlusal Repositioning Appliances) in supposedly improving sporting performances, to his role as dentist to the University Football Team.

Our next meeting promises to be most interesting. It is on July 18th and it will be a dual presentation by Orthodontist, Kim Mezger, and Oral Surgeon, Ian Rosenberg, on their combined approach for difficult cases.

Alistair Devlin

N.S.W. BRANCH

The year has commenced extremely well. Membership, at the commencement, was much the same as last year but over the months several new members have joined.

Planning for the October (Federal) Biennial Convention continues and all the details are beginning to fall into place.

The branch has finalised details of its membership certificates and these have been printed.

Our first meeting for 1984 was a presentation by Mr. Alan Baynham. He

N.S.W. BRANCH continued

gave a short talk and this was followed by an excellent video presentation of the activities of the Special School for Multi Handicapped Blind Children at North Rocks. The presentation was not only interesting and informative but moving. At the conclusion of the meeting, Mr. Baynham distributed spectacles designed to simulate some of the conditions that afflict his students, this reinforced for those present the understanding of the handicaps of the visually impaired.

The next meeting of the Society is to be held on May 29th, when Dr. James Lucas of Melbourne will make a presentation entitled:- "Things that go Bump in the Night; - The Birth of Growth Studies".

Other meeting dates for the branch are - July 17th, September 18th and November 20th.

Naturally we are looking forward to seeing a good number of members from all the Branches of the Society at the A.S.D.C. 5th Biennial Convention to be held at the Sydney Opera House on Thursday & Friday 18th & 19th October.

Alain Middleton

TASMANIAN BRANCH

On the 25th February the Branch had a successful dinner meeting at which time general discussions took place. We are pleased to report that our membership is steadily rising and we expect some new members in the near future.

Our next dinner meeting will take place in June. So far our dinner meetings have been a great success. Attendances have always been in the region of 90% of the membership.

The Branch is greatly concerned with the continuation of dental treatment for unemployed youths. There appears to be little likelihood of continuity of dental treatment at end of School Dental Care for unemployed teenagers, or where parents are unemployed. The Branch may consider this as a project for investigation and report.

Felix Goldschmeid

S.A. BRANCH.

Since the last Issue of the Newsletter the Branch has held its 3rd Country Convention and one Regular meeting.

The Country Convention (March 9-11) was a success academically and socially. Thirty-five dentists attended and twelve associates, and several dental students. Nine members came from interstate, including and very welcome, A.S.D.C. Federal President, Professor Des Kailis.

Hazelmere Estate, set in a wonderful environment, was an ideal location. The Programme included a balanced variety of themes and subjects.

FRIDAY. Dr Michael Nugent, among other things, the Orthodontist on the S.A. Cranio-Facial Unit, spoke on 'Removable Orthodontic Appliances'. He reminded us removable appliances have limited use since they achieve a tipping movement only. Skeletal or Jaw problems cannot be treated with removable appliances. They are most useful in simple Incisor Cross-bites with no tendency to Class III Malocclusion.

He gave us advice on how to make their use as trouble-free as possible.

Dr. Kevin Murphy, Oral Surgeon, told us that he treats a child, over six years of age, as an adult - explaining what needs to be done and encouraging him/her to ask questions. He finds this makes children feel responsible and thus more co-operative, and they have a surprising good understanding of what is happening.

The most common surgical procedures in paedodontic patients were Extraction of Submerging Teeth, Frenectomies, Surgical removal of Displaced, Impacted or Dilacerated teeth, surgical Exposure of teeth, removal of Supernumerary teeth, Submandibular Calculi and Odontomes.

Dr. Rory Hume, Senior Lecturer, Restorative Dentistry, University of Adelaide, explained why Glutaldehyde 2% Solution is superior to the Formaldehyde we are accustomed to using in Pulpotomies. The diffusion of Glutaldehyde through the roots of vital teeth being treated by pulpotomy, is markedly less, and it is a better fixant of protein. In addition, its odour is less objectionable than that of Formocresol.

Dr. John Booth, Endodontist, spoke on 'Endodontic Situations relating to Children'. The most worrying is the Avulsed

Tooth; Extra-oral time is critical as after 15 -18 minutes cell death has commenced. If not replaced at once, the tooth should be kept in the oral fluids, milk or 'Gladwrap'. Before reimplantation, the tooth should not be scraped or cleaned - except when it is Very dirty, when it can be rinsed quickly. The Acid-etch Composites make splinting of teeth simple and easy.

Dr Booth touched on some other less common endodontic problems, such as 'Dens in Dente', and Invaginations, he considers that all dental fractures in children should be followed up as a surprising number result in pulp necrosis or non-vitality.

SATURDAY. We had three scintillating Talks given by medical specialists.

Dr. Eldon Goldblatt, Director, Cardiology Department, Adelaide Childrens Hospital, had some welcome news about 'antibiotic cover for dental treatment in Cardiac patients'.

Up to date, his advice has been that the antibiotic cover, for those not allergic to penicillin, is one million units of I.M. penicillin, one hour prior to dental treatment, with a 'three day' follow up of Oral penicillin. He maintains that penicillin tablets, used alone, for prophylaxis prior to dental treatment are useless. However, the British Cardiac Society, and the Medical Services Study Group in a study using Amorycillin as a prophylaxis taken orally prior to dental treatment, have found it satisfactory. The new regime, for children over 10 yrs, is 3 grms of Amorycillin 1 - 2 hours before the dental procedure, and afterwards 500 mgm t.d.s. for three days. Dr. Goldblatt's description of bacterial endocarditis is a strong incentive for dentists to utilise the best available methods for its prevention.

It was very good news that I.M. injections of penicillin are no longer the required prophylactic measure.

Dr. Julian White, a world renowned in areas of poisonous Reptiles and Spiders, gave us an amusing, enlightening and interesting talk. His information on recognising snakes, and how to avoid being bitten was illustrated by fascinating slides. Children are often victims of venomous bites because they do not fear reptiles and spiders and often play with them.

He stated that splinting and bandaging the bitten area is the treatment of choice; and that slashing with razors, biting or 'sucking out the poison' does more harm than good. The patient should be calmed down and transported to the nearest hospital, with, if possible, a description of the reptile or spider so that appropriate anti-venine can be more easily obtained, should this be necessary.

Dr. Des Dineen, Senior Anaesthetist at the Adelaide Childrens Hospital, and leader of the S.A. Emergency Retrieval Team, described the methods and the equipment used in the life-saving activities of the team, which comprises Specialist Anaesthetists and Nurses who are continually 'on call' to go out to help in a life-threatening situation and to bring back the child to the Childrens' Hospital, - using ambulance, helicopter or light airplane whichever is appropriate.

It must provide great assurance to lone doctors in isolated country towns to know this help is available in such an emergency.

Though the subject matter was sombre, Dr. Dineen was able to lighten the situation with humour.

SUNDAY Dr. Robert Guerin, E.N.T. Specialist, gave us a deeper insight into the problems of mouth breathing. The causes of mouth breathing are very numerous - a blocked nose being a basic cause. After the nasal passages have been cleared by medication or surgically, or by maxillary expansion, sometimes physiotherapy is required to encourage nose breathing. Referring to 'tongue thrusting' in an older child Dr. Guerin stated that usually other primitive reflexes are also present, frequently caused by minimal cerebral palsy.

The lecture programme concluded with a forum on three subjects.

Dr. Kevin Allen, Senior Lecturer in Childrens Dentistry, University of Adelaide, told how the Tution in his area of Childrens Dentistry is changing because of changes in childrens' dental problems. With the marked diminution in dental caries, and with much of the basic dental work carried out by School Dental Therapists, Paedodontic Specialists of the future will require to delve into

the more esoteric problems of childrens dentistry. Dental clinical students are already aware of this, because they have fewer paedodontic patients, and of these not many suffer dental caries.

Dr. Bryon Kardachi, Specialist Periodontist, discussed juvenile periodontal problems. He stated that untreated juvenile periodontitis starting in teenage, is totally destructive by the early 20's, and hence it needs to be treated very seriously, and persistently. As well as oral hygiene instruction etc. a bacterial culture should be taken. If Actinomyces is present, then Tetracycline therapy is indicated, as the usual treatments alone are ineffective.

Margaret Evans, a member of the Australian Nutrition Foundation, spoke on 'Food and Nutrition'. She showed how diet intake over the years has changed since 1910 - interestingly, as affluence increases, so the intake of carbohydrate decreases.

Still thinking of Food and Nutrition, the lunches and dinners of the Convention were held in different wineries.

Dr. John Kibble, our Branch President, took great care to select the wines and caterers, and comments from members gave a good indication that his efforts had been very successful.

At our Regular meeting in April, Dr. Tom Wilkinson, who has made studies on, and whose Specialist practice is, T.M.Joint disorders, gave us an extremely interesting talk on a subject which is arousing more and more interest in the profession.

In the course of his research into the Anatomy, Physiology and Pathology of the T.M.Joint, Dr. Wilkinson has noted that degeneration of the joint is evident in quite young cadavers. It is possible that by the time symptoms such as pain are evident, and the patient seeks treatment, much irrevocable damage has occurred in the joint.

He also referred to such matters as tooth-grinding and tooth-clenching during sleep. It is not clear why individuals do these things, or whether they are related to T.M.Joint problems.

A stimulating discussion followed.

Our next meeting, June 26th at A.C.H.

Vita Luka.

CLINICAL EVALUATION OF GLUTARALDEHYDE PULPOTOMIES IN PRIMARY TEETH.

The pulpotomy technique has been the procedure of choice for treating vital primary teeth with carious exposures. Because of its high success rate, full strength formocresol is the preferred agent for performing pulpotomies in primary teeth.

Because formocresol is strongly toxic, is distributed systemically, and causes immunological, biochemical, mutagenic, teratogenic, and perhaps carcinogenic alterations in the host, it has been suggested that it should not be brought in contact with human tissue. Glutaraldehyde, although it has not been studied so extensively as formocresol, is suggested as substitute for that agent.

In this study 2% unbuffered glutaraldehyde was applied for 1-3 minutes over the radicular pulpal stumps. Immediately a plain fast setting zinc oxide-eugenol cement was placed and an appropriate restoration performed at this visit or within one week.

At regular six-month intervals following the pulp treatment, clinical and radiographic examinations were made.

This study showed that the treatment of pulpotomies with 2% glutaraldehyde to be a clinically and radiographically effective procedure.

After 18 months there was a 96.4% success rate.

It is considered that glutaraldehyde could probably substitute the formocresol for several reasons; 1) it is initially more active, chemically; 2) it rapidly forms cross linkages and its penetration is more limited; 3) it is not as volatile as formocresol; 4) there is less apical damage and less necrosis in the glutaraldehyde treated specimens; 5) there is no evidence of ingrowth of granulation tissue into the apex; and 6) there is less dystrophic calcification in the glutaraldehyde specimens.

(Garcia-Godoy F. Acta Odont. Pediatr. Vol 4 No 2: 41-44. Dec 1983)

MICROLEAKAGE: A MEASURE OF THE PERFORMANCE OF DIRECT FILLING MATERIALS.

Microleakage—the passage of bacteria fluids, chemical substances, molecules, and ions between the tooth and its restoration—is an intrinsic problem of direct filling gold, amalgam, resin, and cast restorations and is clinically undetectable. Microleakage is used as a measure by which

clinicians and researchers can predict the performance of restorative materials in the oral environment.

Factors contributing to microleakage include the interfacial space, inadequate physical properties of the restorative material, and improper restorative technique or procedure.

Composite restorative material is considered the weakest of the direct filling materials because of its lower strength and high coefficient of thermal expansion. With the introduction of the procedure of etching with acid, bevelling enamel margins, and subsequently, the use of a bonding agent or primer, studies have improved marginal seal mainly due to the formation of micropores in enamel within which the resin forms a mechanically retentive seal.

When an improved seal has been demonstrated, it has been shown to be effective only initially, then to degrade precipitously as the etched composite restoration ages. However, even with the breakdown and increased microleakage, composite resins are better than restorations of unfilled resin.

(Bauer and Hanson. Operative Dentistry Vol 9, No. 1, 2-10. Winter 1984)

ENAMEL FLUORIDE UPTAKE IN SUBJECTS WITH HIGH AND LOW EXPERIMENTAL CARIOGENICITY.

In the multifactorial aetiology of dental caries, the resistance of the enamel at a specific site is among the dominant factors that will determine whether the caries process will progress to ultimate cavitation or will be arrested at an earlier stage. Several investigators have shown that areas of arrested caries exhibited a higher degree of resistance to acid demineralization than did the adjacent areas of sound enamel. This may be interpreted as the result of remineralization of incipient caries sites that included F uptake in the form of calcium fluorophosphate salts.

The results of this study suggest that cariogenic activity and fluoride will synergistically improve the tooth resistance to subsequent attack, apparently through mineral exchange that favours the formation of acid-resistant minerals with high fluoride content within enamel lesions.

(Ostrom C.A. et al. J. Dental Research 63(2): 133-136, February 1984)